

WHAT IS CLAIMED IS:

1. (Currently Amended) A secure system for ~~stationary~~ electronic voting comprising
 - a) an intelligent voting machine configured for communication, computation, command and control of information in the nature of audio, video, images, photos, graphics, text, speech, voice, data and other information; wherein
said intelligent voting machine is hardware configured for operation in conjunction with one or more types of inputs in the nature of a keyboard input, a touch screen input, a voice input, audible inputs, data inputs and one or more types of other forms of inputs such as biometric inputs;
and wherein
said intelligent voting machine is hardware configured for operation in conjunction with one or more types of outputs in the nature of a keyboard output, a touch screen output/display, a voice output, audible outputs, data output and one or more types of other forms of outputs; further including
internal processing, storage, database, authorized software and application capabilities resident therein;
 - b) one or more trusted servers with associated storage devices including a local server with an associated storage device, a central server with an associated storage device, a network server with an associated storage device;
 - c) means for secure wired or wireless real time communication between the intelligent voting machine and the local server and other trusted servers/storage devices that are co-located and remotely located,

means for locating the intelligent voting machines in the polling booths, at the polling stations and at selected locations,

55 means for connecting secure real time communication between one or more intelligent voting machines to and the local trusted server,

means for connecting secure real time communication between the trusted local server/storage devices to and other trusted servers located away remotely from the polling booths/ stations station by secure communication links;

60 d) means for utilizing the processing power, databases, data, software and applications resident within the intelligent voting machine in conjunction with the processing power, databases, data, software and applications resident within the trusted local server itself or in combination with the processing power, databases, data, software and applications resident within a remotely located trusted central server, a remotely located trusted network server and other local/remote located trusted servers;

65 e) means for defining an authorized set of voter authentication protocols, means for secure real time authentication of a voter in conjunction with the authentication data related to the voter maintained on an independent and trusted escrow server including authentication while assuring anonymity of the voter, means for providing authenticated and consistent information related to the election issues, candidates and other matters from an approved source such as a trusted server in one or more selected formats including audio, video, data and other formats;

75 f) means for informed selection and casting of the votes by the voter in conjunction with a user selected input method/a system defined input method and a user selected output method/a system defined output method including a combination thereof,

80 means for recording the selection of the voter in real time within the intelligent voting machine, within a local server, within one or more trusted and escrow servers,

g) means for tracking, counting and tabulating the election results in real time within the uniquely identifiable intelligent voting machine itself, within a uniquely identifiable local server, within one or more uniquely identifiable trusted/escrow servers, including

85 means for counting/tabulating the election results without identifying a particular voting machine or polling station,

means for utilizing a plurality of intelligent voting machines sequentially/concurrently/in selected order for secure electronic voting at a selected time and within a selected time period by one or more voters.

90 means for safe guarding, certifying and providing the election results at a selected time and in a selected manner in conjunction with one or more trusted escrow servers.

95 2. (Currently Amended) An intelligent voting machine for secure electronic voting comprising

100 a) a touch screen enabled input/output and display,
 means for a built in processor,
 means for an internal hard disk storage,
 means for a removable memory storage,
 means for an activation mechanism for activation of the voting machine by card activation method, password method and/or
 means for activation of the voting machine by other methods including
105 activation by one or more methods that relate to the biometrics of the specific voter,
 a built in or external secure printer,
 a print capability enabled by built-in means or external means;

means for a secure wired or wireless communication capability with a secure path for communication between the intelligent voting machine, the local server and the secure printer;

110

b) means for the voter to initiate initiating and terminate terminating the print action, means for the voter to obtain obtaining a secure print out of the ballot as cast by the voter, means for the secure print out being an a true representation of the ballot as cast by the voter,

115

means for time stamping of the print out and or identification of the voter by voter registration number or other methods wherein the specific voter is identified or the identity of the specific voter is masked, including

120

means for time stamping and location stamping of the polling station on the print out,

means for the secure printer to provide an alert to the voter to take the printout/upon failure by the voter to take the print out;

125

c) means for the secure destruction of the print out of related to the previous first voter, in the event the print out is not taken by the first voter;

means for shielding/destruction of the print out of one the first voter from being seen or taken by the second/next voter;

130

d) means for a secure wired or wireless connection between the intelligent voting machine and one or more trusted/escrow servers including a local, central and or network servers for authentication of the voter and approved election information;

135

means for leveraging the processing power, storage, databases, software and applications resident within of the intelligent voting machine by itself and or in conjunction with the processing power, storage, databases, software and applications resident within one or more of the trusted servers;

means for secure selection/casting of the votes by the voter in conjunction with a secure paper record of said votes as cast by the voter;

means for real time recording of the votes within the intelligent voting machine and a trusted local server, a trusted central server, a trusted network server or combination thereof.

140

3. (Currently Amended) A secure system for mobile electronic voting comprising
145 a mobile communication device, including a cellular telephone, personal digital assistant PDA, a laptop computer and other mobile devices configured for communication, computation, command and control, wherein

said mobile device being configured for one or more types of input/output methods in the nature of voice, audio, speech, text, data, display, touch screen input/display, keyboard and other methods;

150

one or more trusted servers with associated storage devices, including a trusted local server, a trusted central server and a trusted network server;

155

means for dynamically configuring the mobile device as a mobile voting machine in a standalone manner using the software resident within said mobile device or in conjunction with the software available from/resident on an authorized trusted server,

160

means for secure wired or wireless communication between the mobile voting machine and the trusted servers/storage;

means for dynamic reconfiguration of the mobile device in a stand alone manner and or in conjunction with the trusted servers to the original non mobile voting machine configuration upon conclusion of the mobile electronic voting;

means for enabling the mobile voting machine features and functionality by leveraging the processing power of the mobile device by itself and or in conjunction with the processing power and databases of the trusted local, central and or network servers.

165 4. (Currently Amended) An apparatus for mobile electronic voting comprising
 A mobile voting machine/mobile device comprising
 a mobile voting machine specifically designed for the purpose of enabling mobile
 electronic voting or a mobile device such as a cellular telephone, PDA, laptop computer
 enabled for configuration or for performing the functions of mobile electronic voting,
170 one or more input/output methods that include a touch screen, ~~for input/output and~~
 a display,
 a keyboard,
 a speaker and a microphone and other methods,
 processing/storage and software capability resident within the mobile voting
175 machine/mobile device,
 means for communication of voice and data by wired or wireless methods ~~of voice~~
 and data,
 means for the mobile device to emulate ~~emulating~~ the functions/features of
 the mobile voting machine by internal reconfiguration and or;
180 means for reconfiguration of the mobile device as a mobile voting machine in conjunction
 with the trusted local, central and or network server.

5. (Currently Amended) A secure system for mobile electronic voting of claim 3 comprising

185 a) means for uniquely identifying the mobile device ~~to be uniquely identified~~ by one or more
 methods such as by IPv6 identification number, EIN number, telephone number and other
 methods for the purpose of authenticating the mobile device for a selected mobile electronic
 voting activity ; and or

190 b) means for the utilization of one or more legally approved voter profile profiles for
 authentication purposes wherein the specific individual exercising the mobile electronic voting

privileges is authenticated in accordance with the laws related to said mobile electronic voting in a selected voting region,

195 means for authentication of the specific voter by comparison of the data related to that specific voter maintained in the databases/lookup tables resident one or more trusted/escrow servers, and/or including

means for comparison in conjunction with the data bases/lookup tables resident on the mobile device/mobile voting machine itself;

200 c) means for online registration with a trusted election server of the mobile device/mobile voting machine by device identification method and or

means for online registration of the a specific individual as a voter/ within the voting region with a specific and unique voter profile,

means for the voter profile to indicate party affiliation and or independent status,

205 means for the eligibility to be determined by the registrar of voters or other authorized bodies:

d) means for a unique electronic key to be assigned by the trusted election server to the mobile voting machine and or the eligible voter,

means for the electronic key to be valid for a designated time period and for a designated election,

means for the electronic key to be activated at the precise local date and time of the precinct/election zone at the start of the absentee voting period or the approved beginning of an election, and

215 means for the electronic voting key to be deactivated at the precise date and local time of the precinct/election zone at the conclusion of the absentee voting period or the approved ending of an election, and/or

means for the activation of the electronic voting key at the precise time and date of the precinct/election zone when the polls officially open,

means for the expiration of the electronic key at the precise date and local time of
220 the precinct/election zone when the polls close,

e) means for enabling/disabling the mobile electronic voting privileges to ensure that a
specifically authorized voter casts votes in accordance with the election laws of the selected
region using an authorized mobile device and/or an authorized set of authentication parameters
225 including biometric parameters beginning at a designated time, ending at a designated time and
lasting for a designated time duration.

6. (Currently Amended) A secure system for mobile electronic voting of claim 5 comprising
230 means for location determination of the mobile device/mobile voting machine by a trusted
GPS server means,

means of wired or wireless communication with the GPS server and one or more trusted
servers,

means for the precise determination of the physical location of the voter/mobile
235 device/mobile voting machine,

means for determination of the eligibility of a voter based on presumed/actual location of
the voter in conjunction with the designated/approved mobile device/mobile voting machine;

means for enabling/disabling the mobile electronic voting privileges of a mobile voting
machine/mobile device and a voter;

240 or including the

means for enabling/disabling of the mobile device/mobile voting machine based on
presumed/actual physical location and the relationship of the presumed/actual physical
location to the designated voting precinct location in the event laws mandate a physical presence
with a precinct/region.

245

7. (Currently Amended) A secure system for mobile electronic voting of claim 5 comprising means for the time determination of the mobile device/mobile voting machine by trusted time keeping server means,

250 means of wired or wireless communication with the trusted time keeping server and other trusted servers;

means for the precise determination of the physical location and time of the voter/mobile device/mobile voting machine

255 means for determination of the eligibility of the voter in conjunction with the designated/approved mobile device/mobile voting machine based on presumed/actual location and time,

means for enabling/disabling the mobile electronic key and the voting privileges by time based factors;

including the

260 means for enabling/disabling of the mobile device/mobile voting machine based on the time at presumed/actual physical location and the relationship of the time at presumed/actual physical location to the time at the designated voting precinct location.

265 8. (Currently Amended) A secure system for mobile electronic voting of claim 5 comprising means for precinct level time stamping the mobile electronic voting ~~by the voter wherein the mobile electronic voting actions/activity related to a voter and a corresponding mobile device is recorded within one or more trusted servers and the mobile device,~~

270 means for time stamping based on the time relative to the ~~on~~ presumed/actual physical location time of the voter/mobile device/mobile voting machine where said time determination and location determination are enabled by a trusted time keeping server and a trusted location determining GPS server respectively,

means for time stamping either or both of the times where the mobile device is located and the time at the central precinct level.

9. (Currently Amended) A secure system for mobile electronic voting of claim 5 comprising means for precinct level location stamping of the mobile electronic voting actions/activities of a voter by the a trusted server, ~~and or~~

means for location stamping based on physical location time of where the voter/mobile device/mobile voting machine is located, by a trusted server, ~~and or~~
 means for voter identity stamping by a trusted server,
means for ensuring that duplication of voting by the same individual and other unauthorized actions are precluded and a complete record tracking the detailed actions/activities of a voter and the associated mobile device is maintained on one or more trusted servers,

285 including

10. (Currently Amended) A secure system for mobile electronic voting of claim 5 comprising means for precinct level location stamping of the mobile electronic voting by the a trusted server, ~~and or~~

means for location stamping based on physical location time of the voter/mobile device/mobile voting machine by a trusted server, ~~and or~~

means for voter identity stamping by a trusted server,

means for acquiring the ballot data displayed on the touch screen of the mobile 295 device/mobile voting machine frame by frame or all of the frames for print out and storage purposes;

means for the real time provision of an electronic validated receipt by the trusted election server to the mobile voting machine/mobile device and or to another stationary device,

means for enabling a print out and or storage of the actual ballot cast by the voter in 300 conjunction with the trusted official election server and the processing/storage capabilities of the mobile device/mobile voting machine for printing concurrently, for printing in conjunction with a local or remote printer and for storage and printing at a selected time.

means for ensuring that the voter has a complete validated and certified record tracking the detailed actions/activities of said voter and the associated mobile device available within the mobile device itself or available from one or more trusted servers concurrently or at a selected time wherein said records are enabled in print form, in an electronic record form or one or more forms for use at a selected time.

310

11. (Currently Amended) A secure system for mobile electronic voting of claim 5 comprising means for high speed wired or wireless communication between the mobile voting machine and one or more of the trusted servers, including one or more public/dedicated wired or wireless communication paths,

means for the mobile voting machine/mobile device to communicate for the purpose of mobile electronic voting, using a selected/assigned encryption/decryption protocol in conjunction with a trusted server,

means for the trusted server to randomly enable one or more encryption/decryption algorithms/protocols specific to a selected mobile voting machine/mobile device to limit discovery and intrusion, including

means for said encryption/decryption protocols/algorithms to be variable in time for limiting discovery/intrusion,

means for encrypted and secure communication of voting actions and voting data on one or more public/dedicated wired and wireless communication channels of a mobile voting machine/mobile device.

325

330

12. (Currently Amended) A secure and comprehensive stationary and mobile electronic voting
335 system comprising

- a) a separate and distinct sub system consisting of intelligent voting machines located at the polling stations,
means for high speed wired or wireless communication between the intelligent voting machine and one or more trusted local, central and or network servers,
means for using the processing power/databases/software of the intelligent voting machine by itself and or in conjunction with the processing power/databases/software of the trusted local, central and or network servers;
- b) a separate and distinct sub system consisting of mobile device/mobile voting machines for voting from any location,
means for high speed wired or wireless communication between the mobile device/mobile voting machine and one or more trusted local, central and or network servers,
means for using the processing power/databases/software of the mobile device/mobile voting machine by itself and or in conjunction with the processing power/databases/software of the trusted local, central and or network servers;

355

· 360

c) means for use by the authorized election body of to use/deploy the two separate and distinct sub systems, namely the intelligent voting machines system and or the mobile voting machine system in a standalone manner and or in combination enabling the voters the choice to vote at a polling station using an intelligent voting machine or from any location using their mobile voting machine/mobile device,

365

d) means for while maintaining the confidentiality of the ballot by cast by a specific voter using one or more methods, including
dynamically decoupling voter ID, biometrics and other voter information and its relationship to the ballot cast by that specific voter upon initiation of the selections process and cast ballot function, or
maintaining the voter ID and voter related information on a separate trusted escrow server, wherein said trusted escrow server provides independently validated voting credentials/certificate in real time to the mobile device/mobile voting machine/intelligent voting machine, and
provides a corresponding validated voting credentials/voting certificate in real time, stripped of the actual identity of the voter in said information,
maintain the secrecy of the ballot as cast by a specific voter,
370
means for the delivery of uniform, timely, secure, secret, anonymous and convenient voting services to the voters in accordance with the local, state and federal laws governing each elections.

375

380

385

13. (Currently Amended) A secure electronic voting system of claim 12 comprising
390 means for eliminating the disparities ~~inherent in the prior art methods~~ relative to information ~~and time and machine technology differences between the absentee ballot voter and the voter casting a ballot on the election day at a polling station,~~ means for leveling the playing field among the absentee ballot voters, the voters that use the polling stations and the mobile device/mobile voting machine enabled voters.
395

14. (Currently Amended) A secure system for electronic voting of claim 12 comprising
means for authentication of the voter in conjunction with the specific type of machine being used by such as the intelligent voting machine or the mobile device/mobile voting machine,
400
means for executing one or more authentication tasks in a stand alone manner by utilizing the processing power/databases/software ~~of~~ resident within the intelligent voting machine/mobile voting machine itself and or in conjunction with the processing power/databases/software of one or more of the trusted local, central and or network servers;
405
means for using one or more levels of authentication of the voter as appropriate for the intelligent voting machine or the mobile device/mobile voting machine,
410

415

means for authentication by photographic method, drivers license, passport, birth certificate, social security number, identity card number, video, audio, voice print, finger print, digital signature, hand writing recognition, signature recognition, voting machine ID number and other methods;

420

means for using one or more identification methods for determining voter and or voting machine identity singly and or in selected combination as appropriate for each sub system, in conformance with the election laws.

425

15. (Currently Amended) A secure system for electronic voting of claim 12 comprising

430

means for enabling real time access to approved and trusted information before and or during the activity of casting the ballot by means of the intelligent voting machine or the mobile device/mobile voting machine,

means for providing the authorized real time information to the voting machine by secure wired or wireless communication with a trusted local, central, ~~and/or~~ network server, escrow server, time keeping server, GPS server;

435

means for the appropriate information to be displayed or presented on the desired device using the desired interface at the desired time in one or more windows within a display,

440

means for the voter to view the information in one or more windows for comparison
445 and decision analysis on candidates and the issues,

means for the information to include candidate profiles, photos, video, audio, and
positions on the issues and other information,

450 means for the selection of the desired input/output and display method on the
intelligent voting machine or the mobile device/ mobile voting machine,

means for the information request/delivery, the ballot selections, actuations, and
casting of the ballot by full function keyboard, partial function keyboard, special function
455 keyboard, macro functions, touch screen, voice, audio, sound, text, image, photo, symbol driven,
object driven, icon driven, ~~B~~braille and other methods;

means for configuring the intelligent voting machine or the mobile device/mobile
voting machine interface, input, output and display functions in a standalone manner by using the
460 processing power/databases of the voting machine by itself and or in conjunction with the trusted
local, central and or network servers,

means for informed real time decision, selection and casting of the ballot by the
voter at the ~~desired~~ time and using the ~~desired~~ voting machine.

465

470

16. (Currently Amended) A secure system for electronic voting of claim 15 comprising

475 means for a disabled voter to select the desired input/output/display and interface that is of assistance to overcome the disability,

means for the disabled voter to be adequately informed using one or more selected input/output interfaces,

480 means for the disabled voter to cast the ballot in the desired manner and at the desired time within the approved election period or at the polling station,

485 means for the disabled voter to receive a receipt and true confirming information about the ballot as cast by the disabled voter said receipt being in the manner that is most useful to the disabled ~~or non~~ disabled voter.

17. (Currently Amended) A secure system for electronic voting of claim 15 ~~and 16~~ comprising

490 means for real time text to speech and speech to text conversion,

means for voice input and output in one or more languages,

means for language translation of the text and speech from a first language and to one or more second languages;

495

500

means for the appropriate text to speech, speech to text and language translations/conversions by using the processing power/databases/software of the intelligent voting machine or the mobile voting machine by itself and or in conjunction with the processing power/databases resident on the trusted local, central and or network servers.

505

means for ballot selection and casting of the ballot in one or more languages.

18. (Currently Amended) A secure system for electronic voting of claim 12 and 15 comprising

510

means for a trusted second individual to assist the first individual who is an eligible voter, means for validating the eligibility of the first individual and provisionally enabling the first individual,

515

means for the acquisition of the identity and signature of the second individual in a touch screen window or by other input and authentication means in conjunction with the selected voting machine and or the trusted local, central and or network server,

520

means for the authentication and approval of the second individual to act in a fiduciary capacity with specific power of attorney privileges for the first individual voter,

means for the second individual to determine the ballot choices of the first individual by the appropriate methods,

means for the second individual to cast the ballot as a proxy for the first individual; and or

525

means for a third individual and or additional witnesses to be authenticated and approved by
530 trusted servers to act as a witness or witnesses,

means for witnessing and authenticating by one or more witnesses to ensure that the second individual is performing the actions intended by the first individual voter.

19. (Currently Amended) A secure system for electronic voting of claim 18 comprising

535 means for the second individual to remotely perform the actions desired by the first individual using a stationary or mobile device,

means for the first individual to remotely monitor and review by appropriate and desired interface, input and output method, the actions of the second individual;

540 means for the first individual and the third individual acting as a witness, to remotely monitor and review by appropriate choice of the desired interface, input and output means the real time actions of the second individual;

545 means for wired or wireless connectivity and collaboration between the first individual, second individual, third individual and other individuals, the stationary devices in use, the intelligent voting machines in use, the mobile device/mobile voting machine in use and the trusted servers

means for remote, contemporaneous, at a designated time or delayed collaboration by leveraging the processing power of the communication devices, voting machines and the servers acting alone and or in conjunction for a disabled voter to cast a vote.

550

20. (Currently Amended) A secure system for electronic voting of claim 12 ~~and 15~~ comprising

means for tracking the actions of the specific voter and the voting machines used by the

560 \voter in real time,

means for detecting the actions of multiple voting by the same individual on behalf of the voter and or on behalf of other voters,

means for locking out a particular voter or the particular intelligent voting machine or the mobile device/mobile voting machine from accessing the trusted election servers,

565 means for fraud detection, determining fraud trends, isolating fraud prone machines, fraud prone precincts and providing alerts in real time for action by law enforcement authorities,

means for providing a trail of the fraudulent activity for review and correction of any voting discrepancies by authorized election body and judicial officials.

570

21. (Currently Amended) A secure system for electronic voting of claim 12 comprising

means for providing one or more layers of security for conducting elections in a fair and transparent manner,

575 means for locking in the desired selected functionality and locking out the undesired selected functionality of the trusted election servers by a function-lock and time-lock feature,

means for automatically initiating the function-lock and time-lock features at the desired time on one or more of the selected secure and trusted servers and terminating the function-lock or time-lock automatically after a set time period duration or at a set time,

580

means for limiting the access, alteration of the functions and other features during the function-lock and time-lock sequence,

585 means for override of the function-lock and the time-lock features by authorized override procedure obtained by judicial orders or other official directives,

means for the prevention of premature release of the polling data and the coordinated release of certified results at the desired locations, at the desired time and in the desired sequence.

590 22. (Currently Amended) A secure system for electronic voting of claim 12 comprising

means for validating and certifying the election results by an escrow server and by the designated chief election official such as the secretary of state including non partisan bodies,

595 means for providing accurate, timely and final certified results to the public soon after the polls close by leveraging the computational capabilities of one or more trusted servers acting in a standalone manner and or in conjunction with each other.

600 23. (Currently Amended) A secure system for electronic voting of claim 12 comprising

means for configuring a hierarchy of trusted election servers with one or more servers connected by a secure communication path and one or more servers connected by a plurality of secure communication paths;

605 means for locating the trusted election servers in one or more geographically separated locations,

means for the trusted servers to be under the supervision of election authorities, bi-partisan commissions, neutral bodies and other un-impeachable organizations,

610

means for achieving redundancy in real time storage of the election data at each level such
615 as the intelligent voting machines, the mobile voting machines, the precinct level servers by
enabling dynamic sweep of the data from each voting machine and the servers for remote and
secure storage,

means for defining the sweep nodes, the sweep periodicity from each node and the sweep
620 duration,

means for randomly transferring the data on randomly selected redundant communication
lines to limit intrusion and achieve a high level of data integrity and security.

625 24. (Currently Amended) A secure system for electronic voting of claim 12 comprising

means for dynamically configuring the features of the intelligent voting machine for new
functions and new elections by software communication and download/upload of the functional
instructions and content from a trusted local server, central server, and or a network server,
630

means for dynamically configuring the features of the mobile voting machine for new
functions and new elections by software communication and download/upload of the functional
instructions and content from a trusted local server, central server, and or a network server,

635

640

means for the mobile communication device/mobile voting machine to be dynamically configured with the approved functional instructions at the designated time and for the designated elections using the processing power of the mobile device by itself and or in conjunction with a local, central and or network server.

645

25. (Currently Amended) A secure system for electronic voting of claim 12 comprising means for the mobile electorate such as disabled individuals, students, business travelers, military personnel and others to participate in elections with ease, means for enabling a single mobile device for one or more functions including communication, computation, control, command and for electronic voting functions.

650

26. (Currently Amended) A secure system for electronic voting of claim 12 ~~and 25~~ comprising means for electronic voting in corporate governance matters and share holder matters means for conducting the voting in conjunction with trusted servers/escrow servers maintained by third parties,
means for using stationary and mobile devices such as personal computers, laptop computers, cellular telephones, PDA and other mobile devices for electronic voting.

655

27. (Currently Amended) A secure system for electronic voting of claim 12 ~~and 25~~ comprising means for using the mobile device for auction and other transactions means for the auction to be conducted without fraud and in a fair and equitable manner in conjunction with a trusted third party server, means for authentication of the parties to the auction by a trusted third party server means for execution and compliance to the terms by the parties to the transaction by escrow server means.

28. (Currently Amended) A secure system for electronic voting of claim 12 and 25 comprising

670 means for using the mobile device for opinion surveys,

means for the opinion survey to be conducted without fraud and in a fair and equitable manner in conjunction with a trusted third party server,

means for authentication of the parties to the opinion survey by a trusted third party server,

675 means for computation and analysis of the results by escrow server means.

680

685

690